

Krasnic, Bernard

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Sent: Tuesday, November 17, 2009 12:13 PM
To: Krasnic, Bernard
Subject: Re: Proposed Amd SN. 10/792,079

Attachments: KODA-420_ProposedAmd.doc; ATT00001.txt



KODA-420_Propose ATT00001.txt (1
dAmd.doc (46 K.. KB)

Examiner Krasnic,

Here's the revised proposed amendment.

Docket 87517RLW
Customer No. 01333

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Andrew C. GALLAGHER

CORRECTION OF REDEYE
DEFECTS IN IMAGES OF HUMANS

Serial No. 10/792,079

Filed 03 March 2004

Commissioner for Patents
P.O. Box 1450
Alexandria, VA. 22313-1450

Group Art Unit: 2624

Examiner: Krasnic, Bernard

Confirmation No. 4221

VIA Email
bernard.krasnic@uspto.gov

Sir:

PROPOSED AMENDMENT

1. *(Currently Amended)* A method ~~for of~~ correcting redeye in a digital image, ~~said image~~ having at least one redeye defect pair, said method comprising the steps of:

measuring a redeye defect pair separation;

ascertaining an age classification and a head rotation of each said redeye defect pair;

determining a size limit based on said redeye defect pair separation and upon an imaging system blur associated with said image, and further based upon the ascertained age classification or head rotation of each said redeye defect pair;

adjusting a size of ~~said~~ defects of said redeye defect pair responsive to ~~said defect pair separation~~ the size limit to provide adjusted defects; and

changing a color of said adjusted defects,

wherein the measuring step, the ascertaining step, the determining step, the adjusting step, and the changing step are carried out with a digital image processor.

2. *(Currently Amended)* The method of Claim 1, wherein ~~said the~~ the adjusting step further comprises reducing the size of at least one of said defects of said defect pair.

3. *(Currently Amended)* The method of Claim 2, wherein ~~said the~~ the reducing step further comprises ~~calculating a size limit using said defect pair separation and~~ trimming pixels beyond said size limit from said defects.

4. *(Currently Amended)* The method of Claim 1, further comprising the steps of:

detecting locations of a pair of seed defects prior to ~~said the~~ the measuring step; and

growing said seed defects into grown defects prior to ~~said the~~ the adjusting step; and

wherein ~~said the~~ the adjusting step further comprises reducing the size of said grown defects.

5. *(Currently Amended)* The method of Claim 4, wherein ~~said the~~ the measuring step is executed before the prior to said growing step.

6. (*Currently Amended*) The method of Claim 4, wherein said seed defects each have a single pixel ~~prior to said~~ before the growing step.

7-12. (*Canceled*)

13. (*Currently Amended*) The method of Claim 1, further comprising the steps of:
determining a spatial operator in accordance with said defect pair separation; and
using said spatial operator to blend the image in a vicinity of said adjusted defects.

14-19. (*Canceled*)

20. (*Currently Amended*) A method ~~for~~ of correcting redeye in a digital image, said method comprising the steps of:

detecting a pair of redeye seed defects in said image;
growing each of said redeye seed defects to provide a pair of grown defects;
measuring a separation of the members of one of said pair of redeye seed defects
and said pair of grown defects to provide a defect pair separation;
ascertaining an age classification and a head rotation of each said redeye defect pair;

determining a size limit based on said redeye defect pair separation and upon an imaging system blur associated with said image, and further based upon the ascertained age classification or head rotation of each said redeye defect pair;

adjusting a size of said grown defects responsive to ~~said defect pair separation~~ the size limit to provide adjusted defects; and

changing a color of said adjusted defects to reduce apparent redeye,
wherein the detecting step, the growing step, the measuring step, the ascertaining step, the determining step, the adjusting step, and the changing step are carried out with a digital image processor.

21. (*Currently Amended*) The method of Claim 20, wherein ~~said the~~ the adjusting step further comprises reducing the size of said grown defects.

22. (*Currently Amended*) The method of Claim 20₁ wherein said seed defects each have a single pixel.

23. (*Currently Amended*) The method of Claim 21₁ wherein ~~said the~~ reducing step further comprises ~~calculating a size limit using said defect pair separation and~~ trimming pixels beyond said size limit from respective said defects.

24. (*Currently Amended*) The method of Claim 23₁ wherein said seed defects each have a single pixel and ~~said the~~ reducing step further comprises trimming pixels of each said grown defect disposed farther than said size limit from a pixel location defined by a respective said seed defect.

25. (*Currently Amended*) The method of Claim 23₁ wherein said seed defects each have multiple contiguous pixels and ~~said the~~ reducing step further comprises trimming pixels of each said grown defect disposed farther than said size limit from a centroid defined by a respective said seed defect.

26. (*Currently Amended*) The method of Claim 20₁ wherein ~~said the~~ growing step further comprises:

- generating a list of pixels of each said seed defect to provide list pixels;
- determining pixels neighboring said list pixels to provide neighboring pixels;
- calculating color value ratios of each of said neighboring pixels; and
- adding to said list one of said neighboring pixels having the color value ratio most distant from a predetermined limit, when one or more of said neighboring pixels has a color value ratio greater than a predetermined limit.

27. (*Currently Amended*) The method of Claim 20₁ further comprising the step of determining an eye separation correction factor ~~and~~₁ wherein ~~said the~~ adjusting step is responsive to said defect pair separation and said separation correction factor.

28-33. (Canceled)

34. (Currently Amended) A computer readable storage medium having a computer program stored thereon for performing a method ~~for~~ of correcting redeye in a digital image, ~~said image including defects corresponding to at least having at least one redeye defect pair, the method comprising the steps of:~~

~~measuring a redeye defect pair separation in response to distance data measured by a distance measurer;~~

~~ascertaining an age classification and a head rotation of each said redeye defect pair;~~

~~determining a size limit based on said redeye defect pair separation upon an imaging system blur associated with said image, and further based upon the ascertained age classification or head rotation of each said redeye defect pair;~~

~~adjusting a size of said defects responsive to of said redeye defect pair separation responsive to the size limit to provide adjusted defects utilizing a processing unit; and~~

~~changing a color of said adjusted defects with said processing unit.~~

35. (Currently Amended) A system for correcting redeye in a digital image, ~~said image~~ having at least one redeye defect pair, said system comprising:

~~a distance measurer means for measuring~~ measuring unit configured to measure a defect pair separation;

~~an ascertaining unit configured to ascertain an age classification and a head rotation of each said redeye defect pair;~~

~~a defect grower means for receiving said defect pair separation and adjusting a size of said defects responsive to said defect pair separation to provide adjusted defects; and~~

~~a determining processor unit configured to determine a size limit based on said redeye defect pair separation and upon an imaging system blur associated with said image, and further based upon the ascertained age classification or head rotation of each said redeye defect pair;~~

~~an adjusting processor unit configured to adjust a size of defects of said redeye defect pair responsive to the size limit to provide adjusted defects; and~~

a color modifier ~~means for changing unit configured to change~~ a color of said adjusted defects.

36-44. (*Canceled*)

REMARKS

The proposed claims incorporate all the changes discussed. Please call Lyle Kimms at 202-352-0491 if the examiner has any further questions or any further issues.

Respectfully submitted,

ROSSI, KIMMS & McDOWELL LLP

17 NOVEMBER 2009

DATE

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